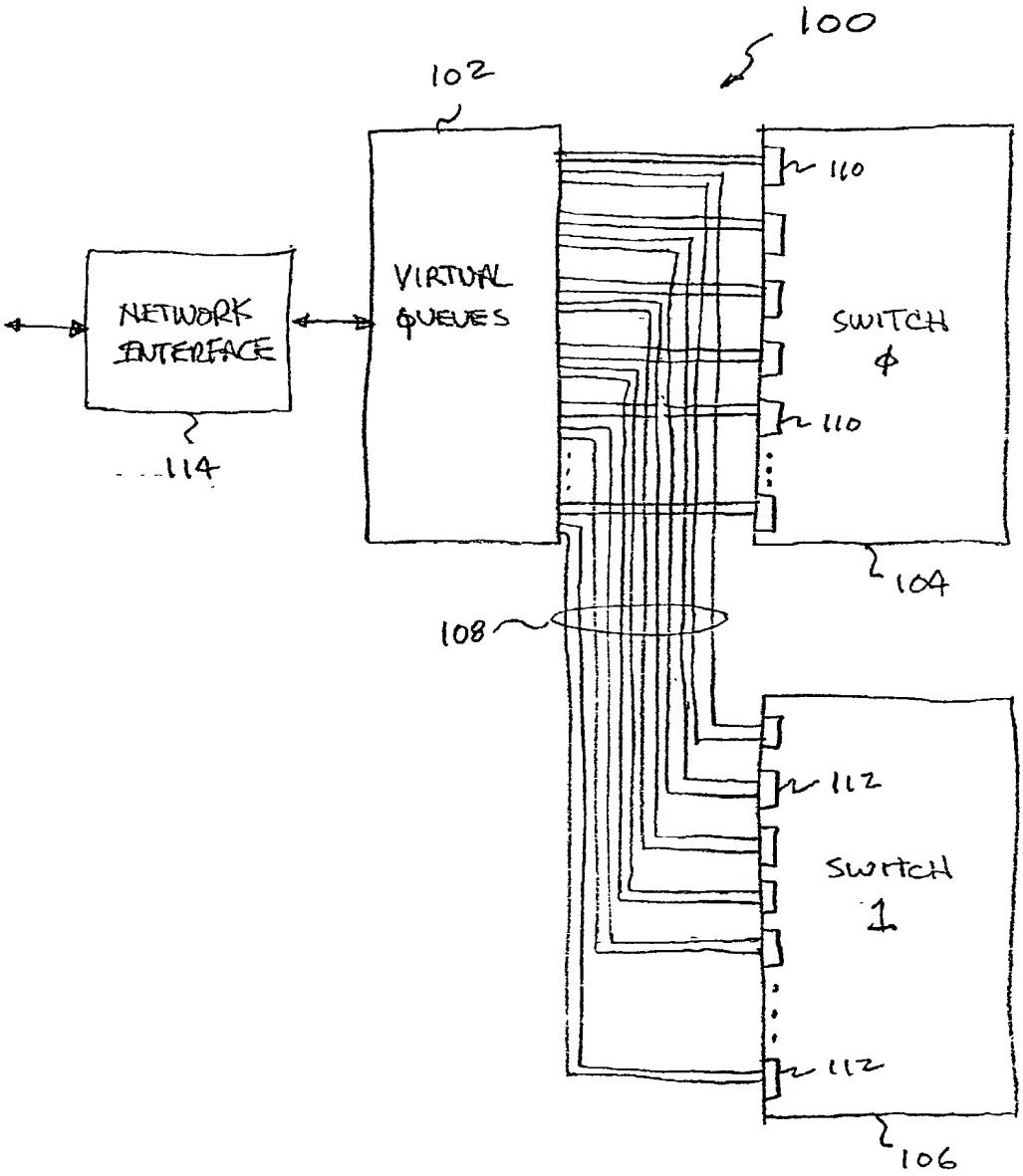

FIG. 1

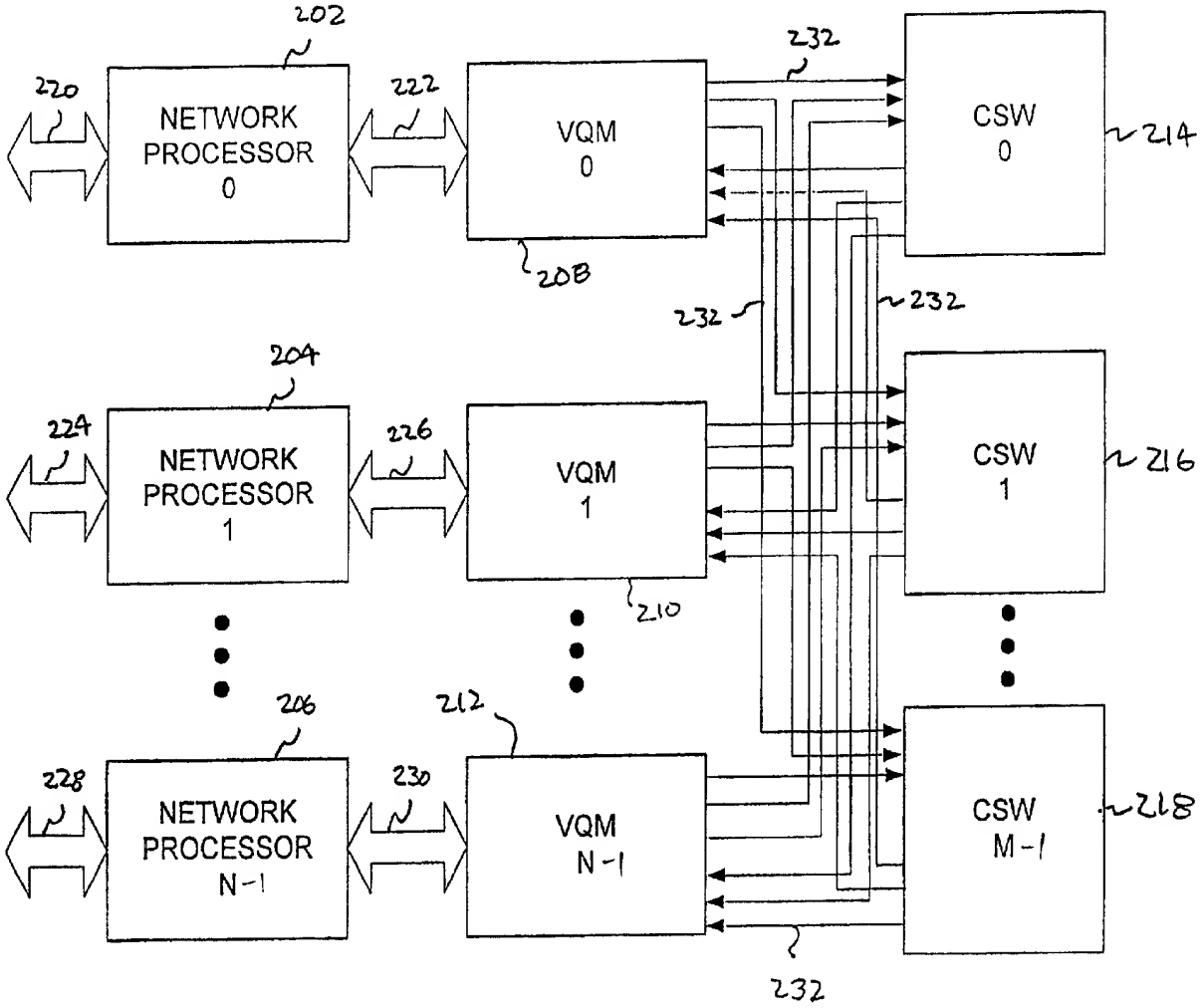

FIG. 2A

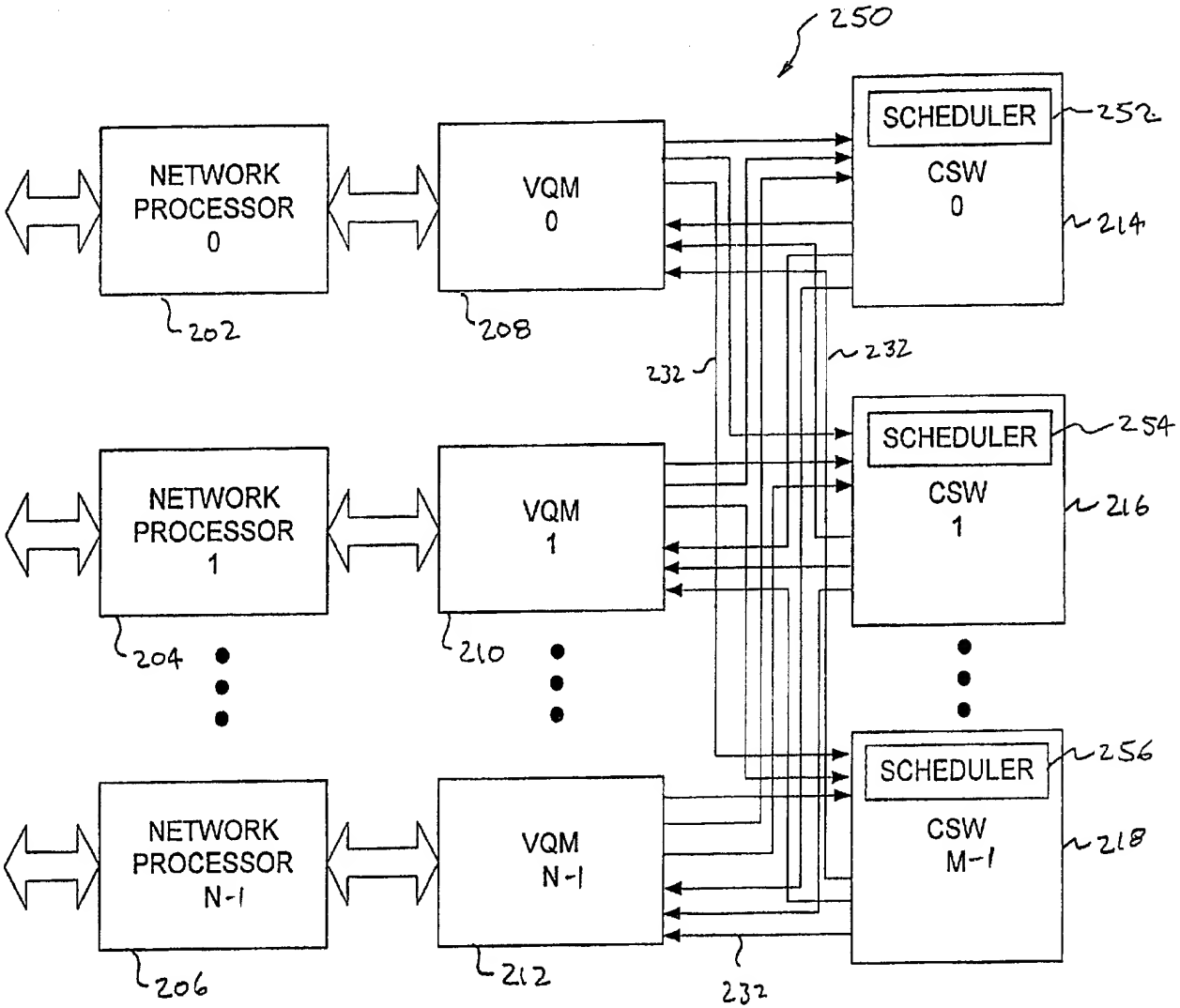
250
SCHEDULER
252
CSW
0
214
NETWORK
PROCESSOR
0
202
VQM
0
208
232
232
SCHEDULER
254
CSW
1
216
NETWORK
PROCESSOR
1
204
VQM
1
210
SCHEDULER
256
CSW
M-1
218
NETWORK
PROCESSOR
N-1
206
VQM
N-1
212
232

FIG. 2B

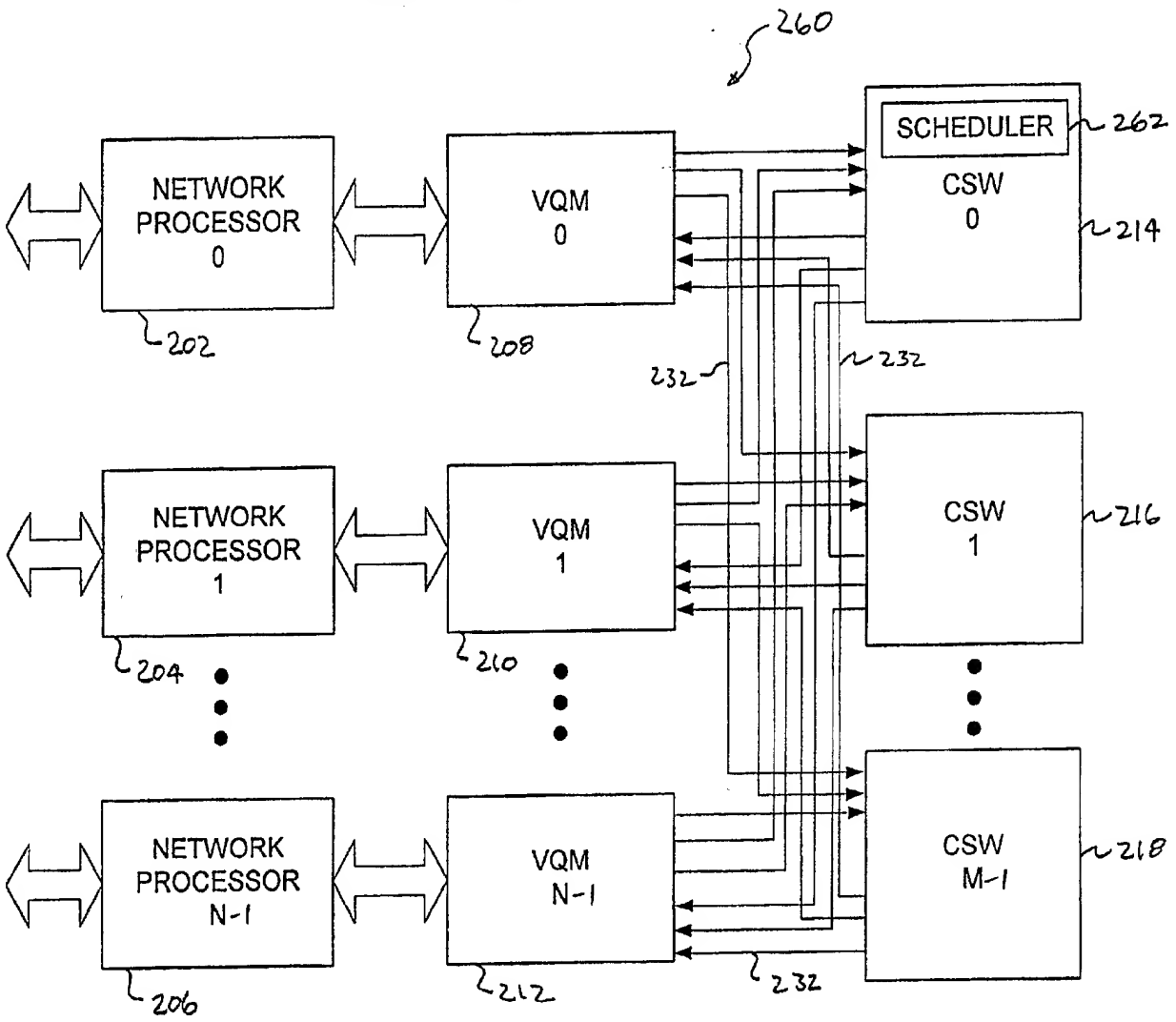
260
SCHEDULER
262
CSW
0
214
NETWORK
PROCESSOR
0
202
VQM
0
208
232
232
NETWORK
PROCESSOR
1
204
VQM
1
210
CSW
1
216
NETWORK
PROCESSOR
N-1
206
VQM
N-1
212
232
CSW
M-1
218

FIG. 2C

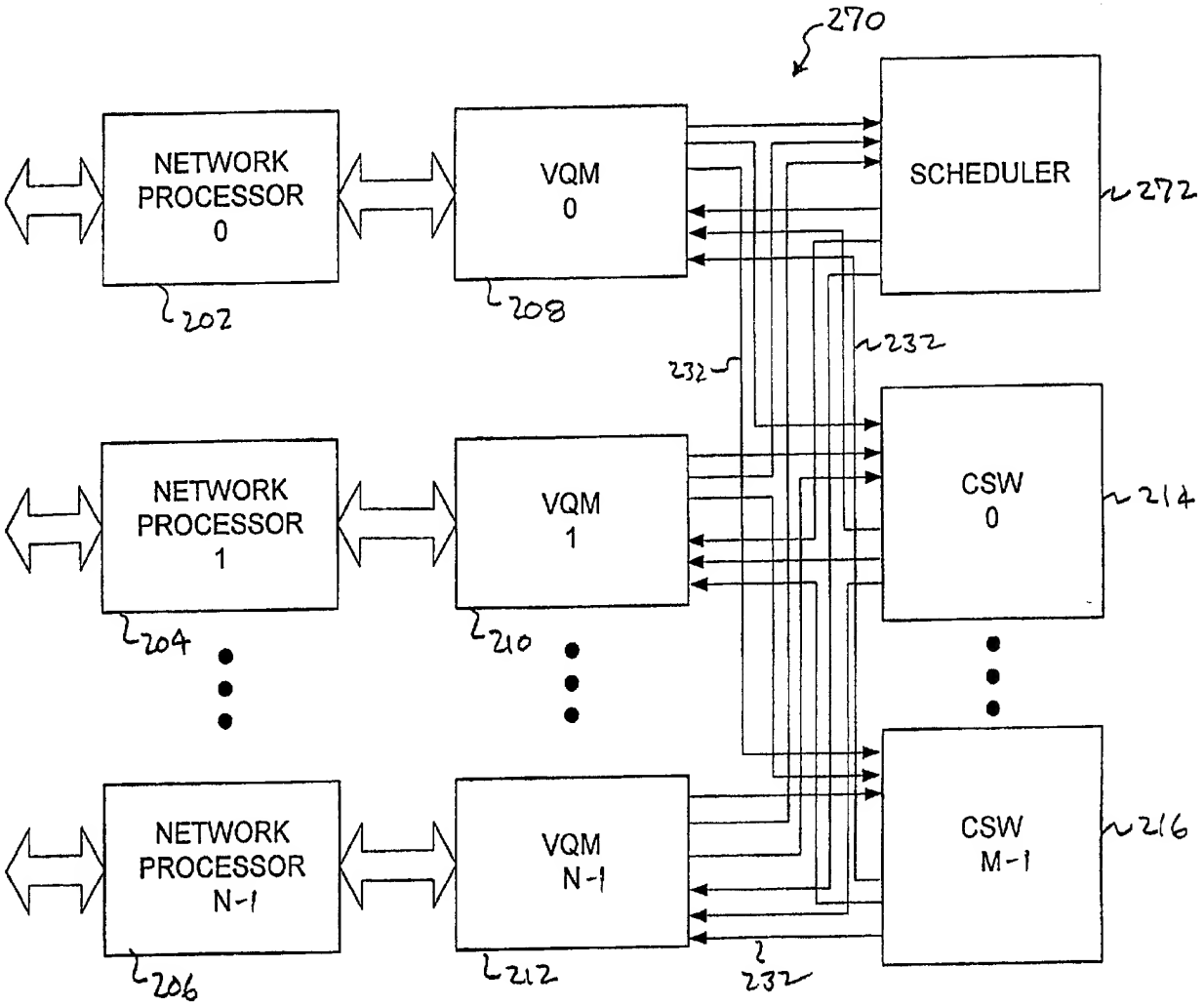
270
NETWORK PROCESSOR 0
202
VQM 0
208
SCHEDULER
272
232
232
NETWORK PROCESSOR 1
204
VQM 1
210
CSW 0
214
NETWORK PROCESSOR N-1
206
VQM N-1
212
CSW M-1
216
232

FIG. 2D

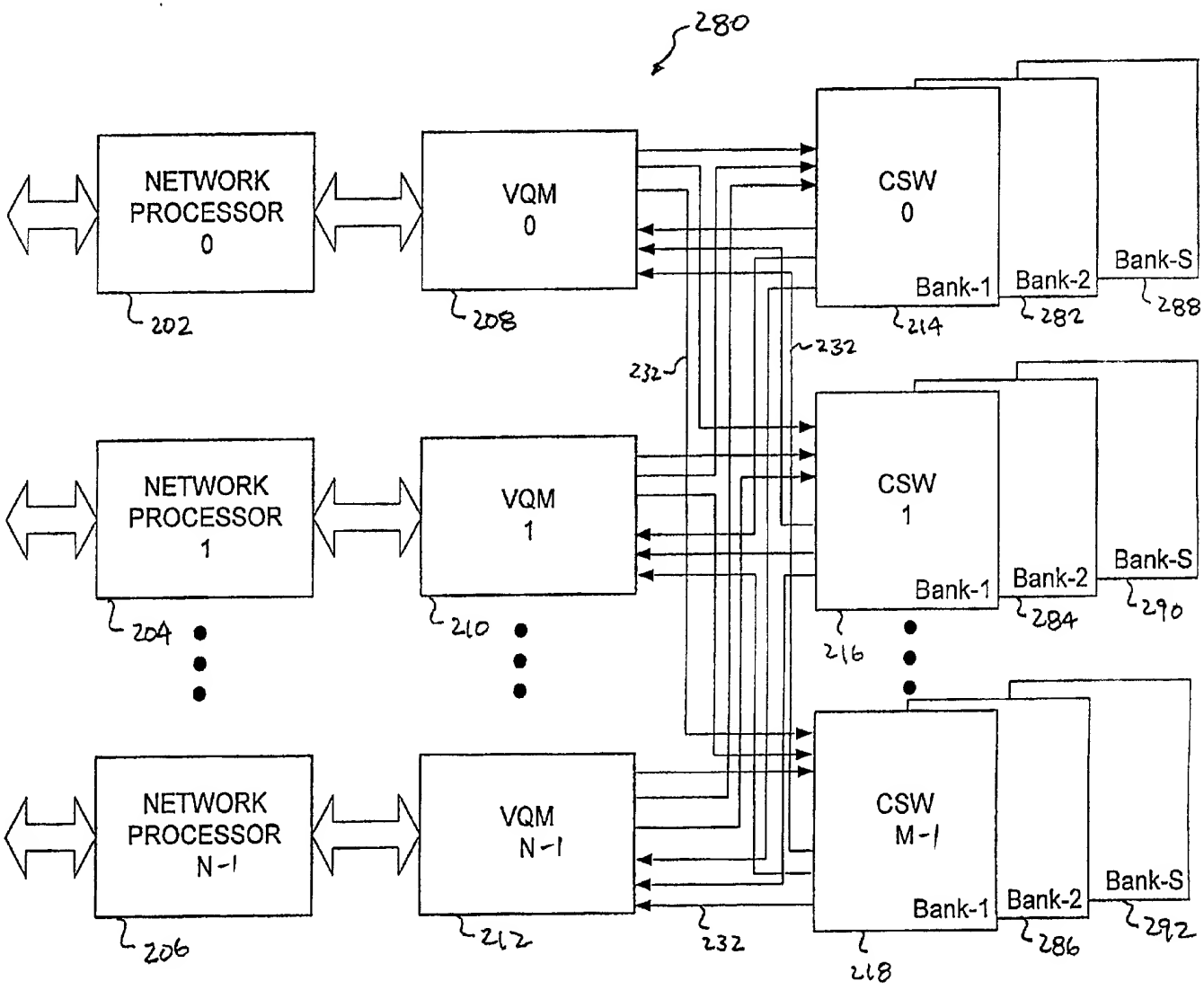
280
NETWORK PROCESSOR 0
202
VQM 0
208
CSW 0
Bank-1
Bank-2
Bank-S
214
282
288
232
232
NETWORK PROCESSOR 1
204
VQM 1
210
CSW 1
Bank-1
Bank-2
Bank-S
216
284
290
NETWORK PROCESSOR N-1
206
VQM N-1
212
232
CSW M-1
Bank-1
Bank-2
Bank-S
218
286
292

FIG. 2E

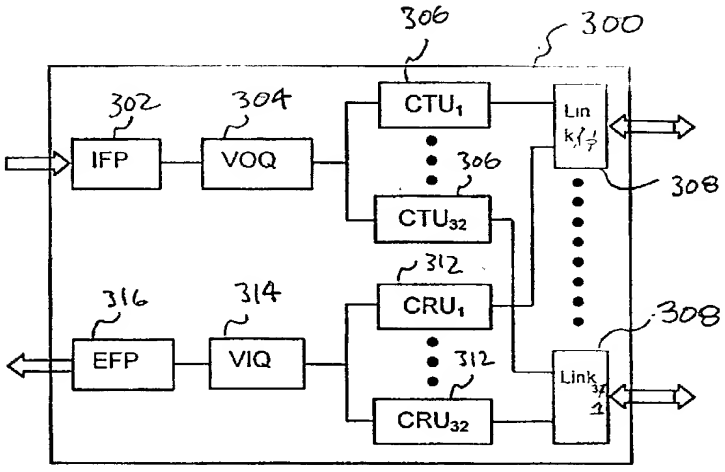

FIG. 3 [VQM]

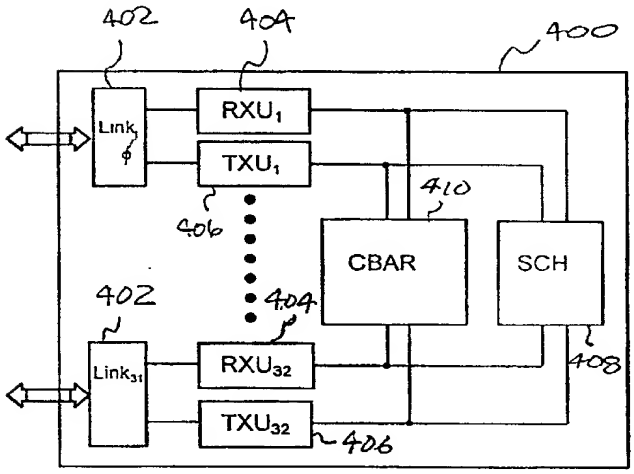

FIG. 4 [CSW]

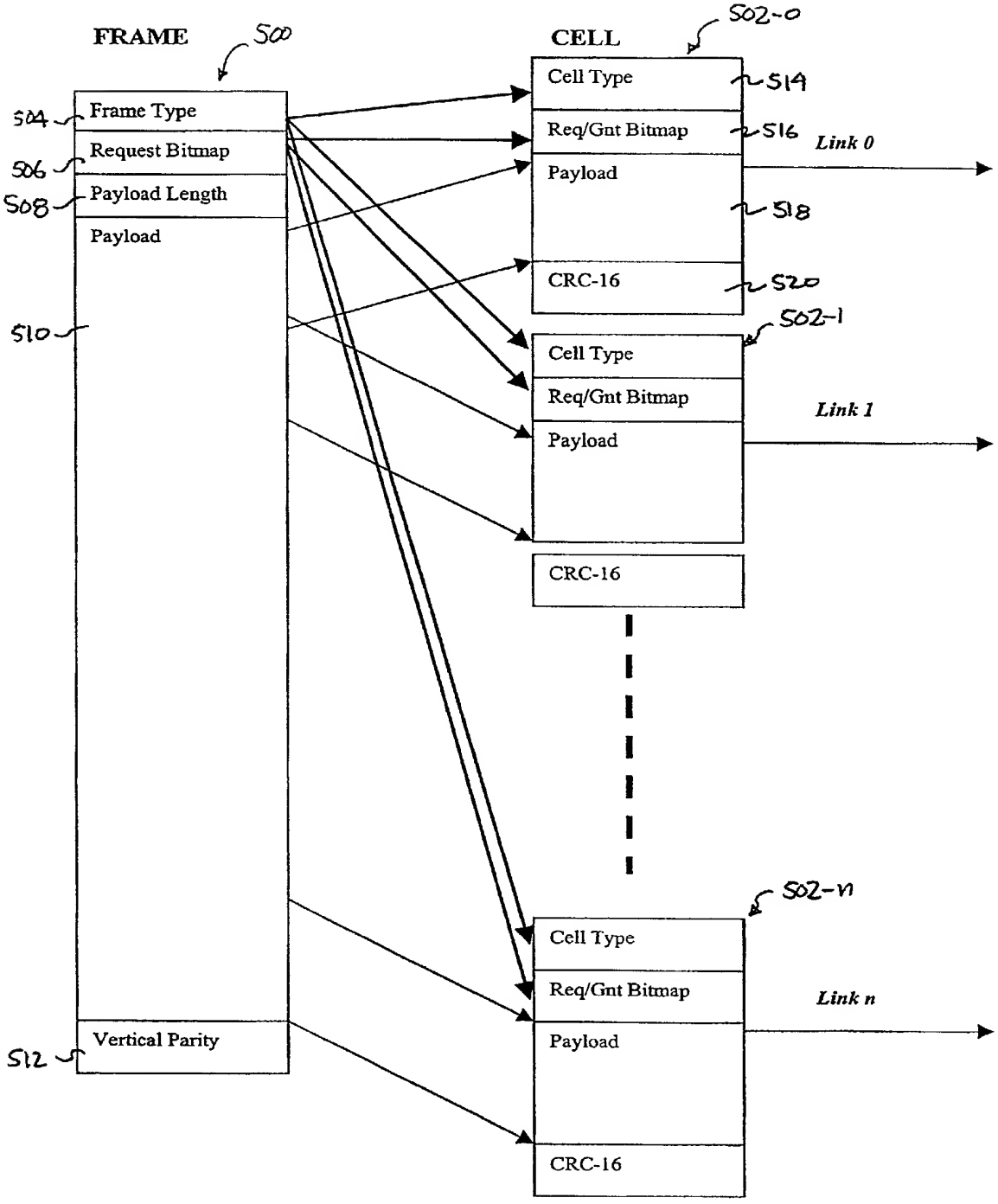
FRAME
500
Frame Type
504
Request Bitmap
506
Payload Length
508
Payload
510
Vertical Parity
512
CELL
502-0
Cell Type
514
Req/Gnt Bitmap
516
Payload
518
CRC-16
520
Link 0
502-1
Cell Type
Req/Gnt Bitmap
Payload
CRC-16
Link 1
502-n
Cell Type
Req/Gnt Bitmap
Payload
CRC-16
Link n

FIG. 5

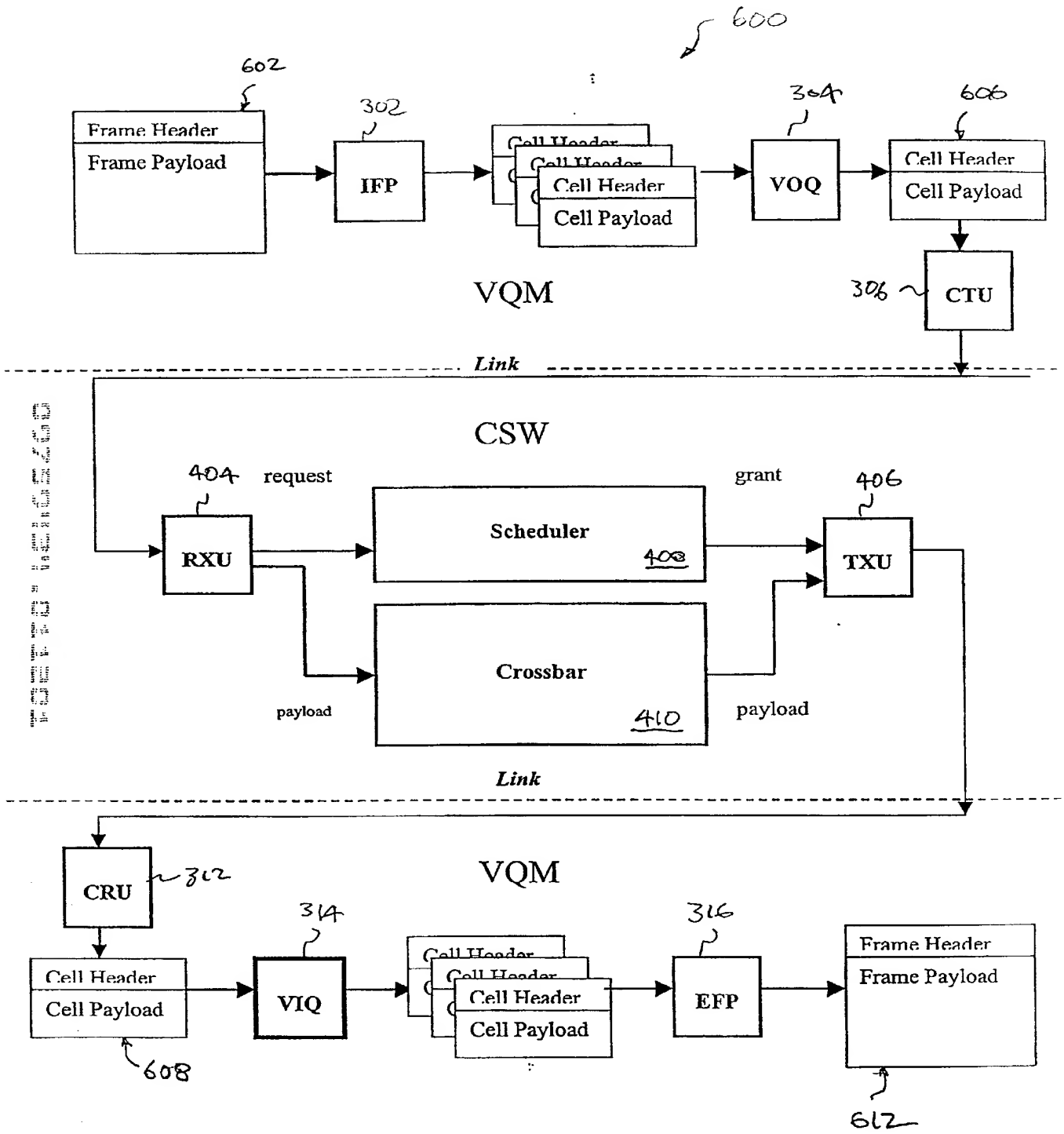
600
602
Frame Header
Frame Payload
302
IFP
Cell Header
Cell Payload
304
VOQ
606
Cell Header
Cell Payload
VQM
306
CTU
Link
CSW
404
request
RXU
Scheduler
408
grant
406
TXU
Crossbar
410
payload
payload
Link
VQM
CRU
312
314
Cell Header
Cell Payload
VIQ
316
EFP
Frame Header
Frame Payload
608
612

FIG. 6

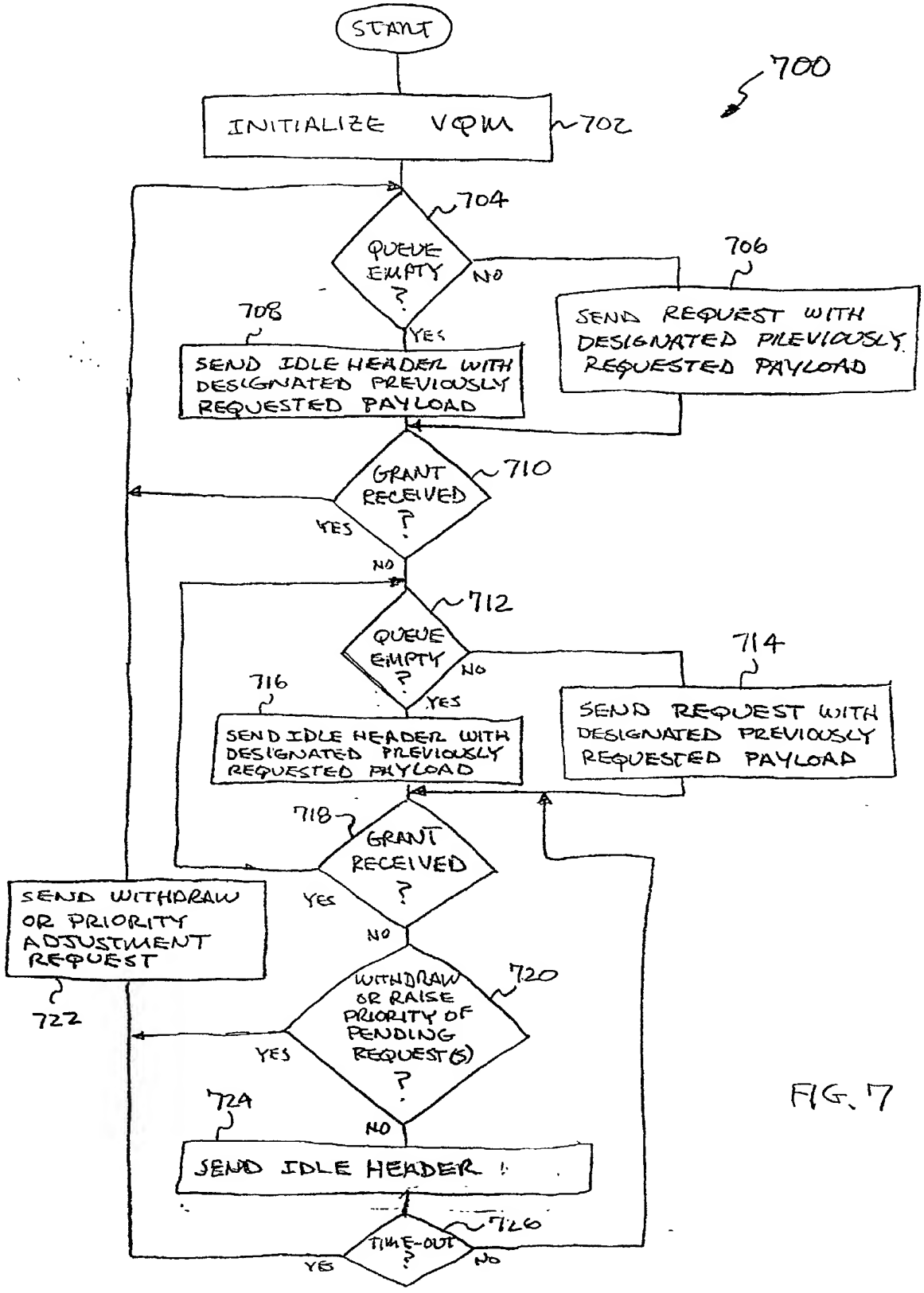
START
INITIALIZE VQM
702
700
704
QUEUE EMPTY ?
NO
YES
706
SEND REQUEST WITH DESIGNATED PREVIOUSLY REQUESTED PAYLOAD
708
SEND IDLE HEADER WITH DESIGNATED PREVIOUSLY REQUESTED PAYLOAD
GRANT RECEIVED ?
710
YES
NO
712
QUEUE EMPTY ?
NO
YES
714
SEND REQUEST WITH DESIGNATED PREVIOUSLY REQUESTED PAYLOAD
716
SEND IDLE HEADER WITH DESIGNATED PREVIOUSLY REQUESTED PAYLOAD
718
GRANT RECEIVED ?
YES
NO
SEND WITHDRAW OR PRIORITY ADJUSTMENT REQUEST
722
WITHDRAW OR RAISE PRIORITY OF PENDING REQUEST(S) ?
720
YES
NO
724
SEND IDLE HEADER
TIME-OUT ?
726
YES
NO

FIG. 7

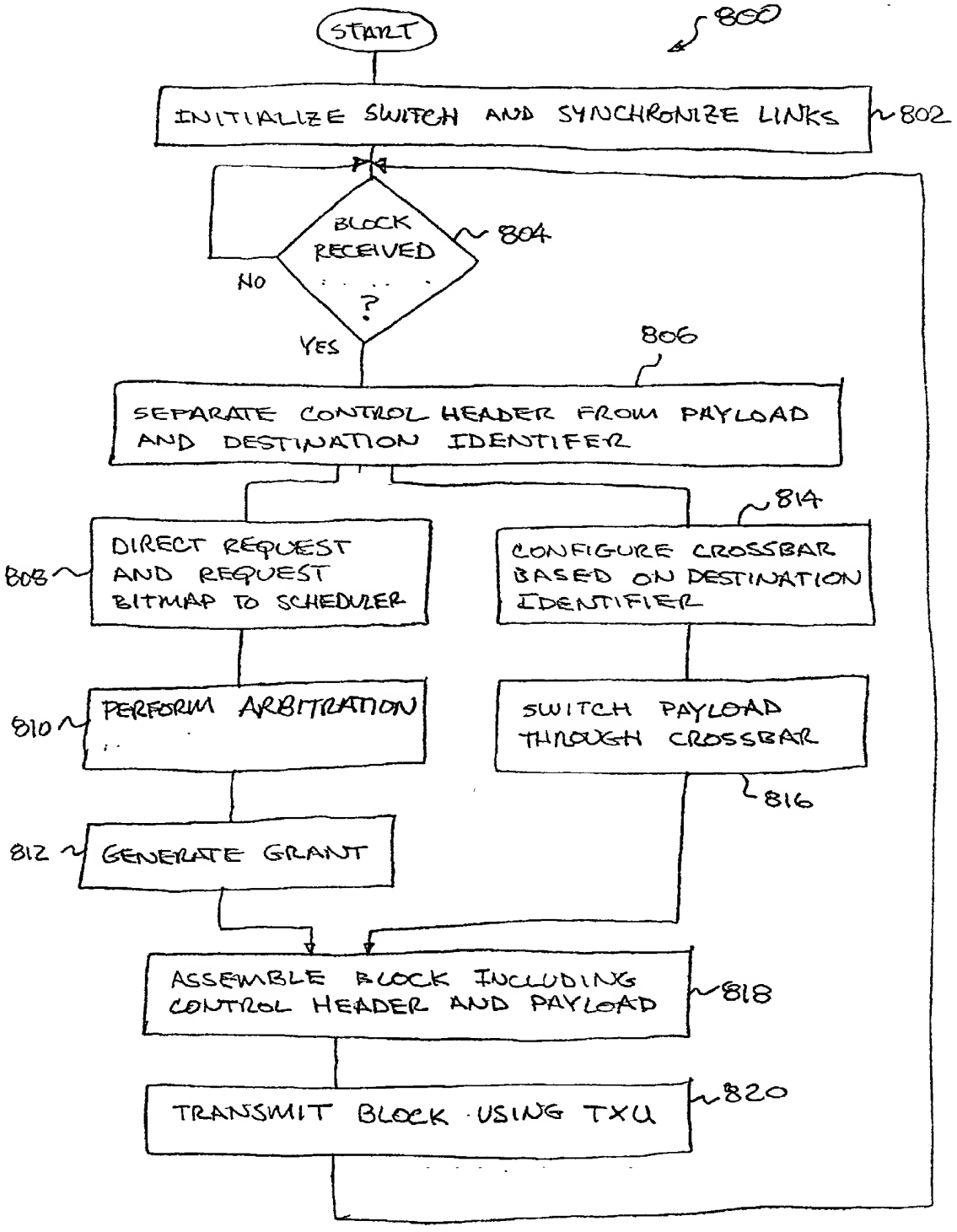
START
800
INITIALIZE SWITCH AND SYNCHRONIZE LINKS
802
BLOCK RECEIVED ?
804
NO
YES
806
SEPARATE CONTROL HEADER FROM PAYLOAD AND DESTINATION IDENTIFER
808
DIRECT REQUEST AND REQUEST BITMAP TO SCHEDULER
810
PERFORM ARBITRATION
812
GENERATE GRANT
814
CONFIGURE CROSSBAR BASED ON DESTINATION IDENTIFIER
SWITCH PAYLOAD THROUGH CROSSBAR
816
ASSEMBLE BLOCK INCLUDING CONTROL HEADER AND PAYLOAD
818
TRANSMIT BLOCK USING TXU
820

FIG. 8